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STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR March 4, 1994

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

ANITA LOCKWOOD CABINET SECRETARY

Meridian Oil, Inc. P.O. Box 4289 Farmington, NM 87499-4289

Attention: Peggy Bradfield

Administrative Order NSL-3361(NSP)

Dear Ms. Bradfield:

Reference is made to your application dated March 1, 1994, for a non-standard Pictured Cliffs gas well location for the proposed San Juan 28-5 Unit Well No. 230 to be drilled 1290 feet from the North line and 2314 feet from the East line (Unit B) of Section 25, Township 28 North, Range 5 West, NMPM, to test the wildcat Pictured Cliffs formation, Rio Arriba County, New Mexico. Lots 1 and 2 and the W/2 NE/4 (NE/4 equivalent) of said Section 25 shall be dedicated to the well forming a non-standard 184.64-acre gas spacing and proration unit for said zone.

By the authority granted me under the provisions of Division General Rules 104.F(1) and D(2), the above-described unorthodox gas well location and non-standard gas spacing and proration unit are hereby approved.

Further, it is our understanding that the Pictured Cliffs zone is to be downhole commingled with the Basin-Fruitland Coal Gas Pool in this well. The location is considered standard for the Basin-Fruitland coal gas interval, however, Meridian shall comply with all provision of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool as promulgated by Division Order No. R-8768, as amended, pertaining to the downhole commingling of coal gas production with said Pictured Cliffs gas.

Sincerely,

William J. LeMay

Director

WJL/MES/amg

MAR 0 8 1994.
OIL CON. DIV.

cc: Oil Conservation Division - Aztec

US Bureau of Land Management - Farmington

Ernie Busch

From: To: Ernie Busch Mike Stogner

Subject:

MERIDIAN OIL INC. (NSL)

Date:

Wednesday, March 09, 1994 8:41AM

Priority:

High

SAN JUAN 28-5 UNIT #230 B-25-28N-05W

1290' FNL; 2314' FEL

RECOMMEND: APPROVAL

| CONTROL NUMBER: 025465 | POINT OF | DISPOSITIC | POINT OF DISPOSITION AND WELL COMPLETION INFORMATION | COMPLETION | INFORMATION | | | | |
|--|--|----------------|--|-------------|------------------------------|------------------|--------------|-------------------|---------|
| OGRID: 021042 Operator Name: SNYDER 1625 BF | SNYDER OIL CORP NW 1625 BROADWAY ST SU 2200 | NN SU 2200 | DENVER | | | co 802 02 | Ñ | | |
| C-115 Filer Contact Name: | | - | . | Phone: (| | FAX: | ×. | | |
| POD: 2302810 Product Type: OIL Fac | Facility Type: 03 | : 03 | Location: | C 19 31N 1 | C 19 31N 12W County SAN JUAN | AN JUAN | | - | |
| OGRID Name | | | | | OGRID Name | | | | |
| Authorized Transporter(s): 009018 GIANT REFINERY | REFINERY | 100 | PARK | | | | | | |
| Description of POD (40 characters or less): | ss): | | | | | | | | 1 |
| POD: 2302830 Product Type: GAS Fac | Facility Type: 01 | 91 | Location: | C 19 31N 12 | C 19 37N 12W County SAN JUAN | N JUAN | | | |
| OGRID Name | | | | | OGRID Name | | | | |
| Authorized Transporter(s): 021924 SUNTERRA GAS GATHERING COMPANY | RA GAS GAT | HERING COM | PANY | | | | | | |
| Description of POD (40 characters or less): | s): | | | | | | | | 1 |
| POD: 2302850 Product Type: WATER Faci | Facility Type: 05 | 1 | Location: C | 19 31N 12H | County SAN JUAN | N JUAN | | | |
| Description of POD (40 characters or less): | s): | | | | | | | | 1 |
| | | WEL | WELL COMPLETIONS | NS | | | | | |
| Code Pool Name | Code | Producing | Producing Property Name | | | API H | API Well No. | Location Well | Well |
| 71599 BASIN DAKOTA (PRORATED GAS) | 010291 | SOUTHERN UNION | NOINU | | 1 | 30-04 | 30-045-24387 | C 19 31N 12W 002E | 2W 002E |

MERIDIAN OIL

March 1, 1994

Sent Federal Express

Mr. William LeMay New Mexico Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501

Re: Meridian Oil Inc. San Juan 28-5 Unit #230

1290'FNL, 2314'FEL, Section 25, T-28-N, R-5-W - Rio Arriba County, New Mexico

API # 30-039-(not assigned)

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in the Pictured Cliffs formation. This application for the referenced location is due to terrain as shown on the topographic map and archaeology.

This well is planned as a Basin Fruitland Coal/South Blanco Pictured Cliffs well, and application will be made to the New Mexico Oil Conservation Division to commingle this well.

The following attachments are for your review:

- 1. Application for Permit to Drill.
- 2. Completed C-102 at referenced location.
- 3. Offset operators/owners plat
- 7.5 minute topographic map showing the orthodox windows for the northeast quarter dedication for the Pictured Cliffs, and enlargement of the map to define topographic features.
- 5. If the well were directionally drilled to a standard bottom hole location, the economics would be severely burdened due to the incremental directional drilling costs of \$150,000.

Meridian Oil Inc. is operator of the San Juan 28-5 Unit and is the offsetting operator for this section.

Sincerely

Peggy Bradfield

Regulatory/Compliance Representative

radued

encs.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

| 1a. | Type of Work | 5. Lease Number |
|-----|--|--|
| 41. | DRILL Time of Well | SF-079520A |
| 1b. | Type of Well GAS | 6. If Indian, All. or Tribe |
| 2. | Operator | 7. Unit Agreement Name |
| | MERIDIAN OIL | San Juan 28-5 Unit |
| 3. | Address & Phone No. of Operator | 8. Farm or Lease Name |
| | PO Box 4289, Farmington, NM 87499 | San Juan 28-5 Unit |
| | (505) 326-9700 | 9. Well Number 230 |
| 4. | Location of Well | 10. Field, Pool, Wildcat |
| | 1290'FNL, 2314'FEL | Basin Fruitland Coal S.Blanco Pic.Cliffs |
| | - // 1 050 001 00M - 14 1 1070 101 00M | 11. Sec., Twn, Rge, Mer. |
| | Latitude 36° 38' 09", Longitude 107° 18' 22" | Sec 25,T-28-N,R-5-W NMPM |
| 14. | Distance in Miles from Nearest Town | 12. County 13. State |
| | 6 miles to Gobernador | Rio Arriba NM |
| 15. | Distance from Proposed Location to Nearest Property or Lease 1290 | Line |
| 16. | Acres in Lease | 17. Acres Assigned to Well 344.62 N/2;184.64 NE/4 |
| 18. | Distance from Proposed Location to Nearest Well, Drig, Compl, | or Applied for on this Lease |
| 19. | Proposed Depth | 20. Rotary or Cable Tools |
| | 3940' | Rotary |
| 21. | Elevations (DF, FT, GR, Etc.) | 22. Approx. Date Work will Start |
| | 6775'GR (D) E G E I | VF 04th quarter 1993 |
| 23. | Proposed Casing and Cementing Program See Operations Plan attached MAR 0 3 19 | 994 |
| | 4 | |
| 24. | Authorized by: Malahell OIL CON. | |
| 24. | | |
| | Regional Drilling Engineer | |

OPERATIONS PLAN

Well Name: San Juan 28-5 Unit #230

Location: 1290'FNL, 2314'FEL Section 25, T-28-N, R-05-W

Rio Arriba County, New Mexico

Latitude 36° 38' 09", Longitude 107° 18' 22"

Formation: Basin Fruitland Coal/So.Blanco Pictured Cliffs

Elevation: 6775'GL

| Formation: | Top | Bottom | Contents |
|--------------------|---------------|--------|----------|
| Surface | San Jose | 3070' | |
| Ojo Alamo | 3070' | 3240' | aquifer |
| Kirtland | 3240' | 3450' | • |
| Fruitland | 3 450' | 3666' | |
| Fruitland Coal Top | 3560' | 3660' | gas |
| Pictured Cliffs | 3666' | 3940' | gas |
| Total Depth | 3940' | | - |

Logging Program: Mud logs from 3400' to Total Depth.

IND, Dens, Neut, GR, ML to TD.

Mud Program:

| Interval | Type | Weight | Vis. | Fluid Loss |
|-----------|---------------|---------|-------|------------|
| 0- 200' | Spud | | 40-50 | no control |
| 200-3940' | Non-dispersed | 8.4-9.5 | 30-60 | no control |

Casing Program:

| <u>Hole S</u> | ize Depth | Interval | Csg.Size | Wt. | Grade |
|------------------|-----------|----------|----------|-------|-------|
| 12 1/4 | _ | - 200' | 8 5/8" | | K-40 |
| 7 7/8 Tubing Pro | • | - 3940' | 4 1/2" | 10.5# | K-55 |
| _ | 0 - | - 3940' | 2 3/8" | 4.7# | J-55 |

Float Equipment: 8 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Four centralizers run every 3rd joint to the base of the Ojo Alamo @ 3240'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 3240'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 8 5/8" x 4 1/2" x 2 3/8" x 11" 2000 psi xmas tree assembly.

Cementing:

8 5/8" surface casing - cement with 235 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (298 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

4 1/2" production casing -

First stage - lead w/75 sx Class "B" 65/35 Poz w/6% gel, 2% calcium chloride, 6.25# gilsonite/sx and 1/4# flocele/sx (133 cu.ft. of slurry), tail w/100 sx Class "B" w/2% calcium chloride, 5#/sx gilsonite, 0.25#/sx celloflake (118 cu.ft.), 100% excess to circulate stage tool @ 3400').

Second stage - lead w/733 sx of Class "B" 65/35 Poz w/6% gel, 2% calcium chloride, 6.25# gilsonite/sx and 1/4# flocele/sx (1297 cu.ft.). Tail w/50 sx Class "B" w/2% calcium chloride (59 cu.ft. of slurry, 75% excess to circulate to surface). WOC 12 hrs. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

BOP and tests:

Surface to TD - 11* 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 6* 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

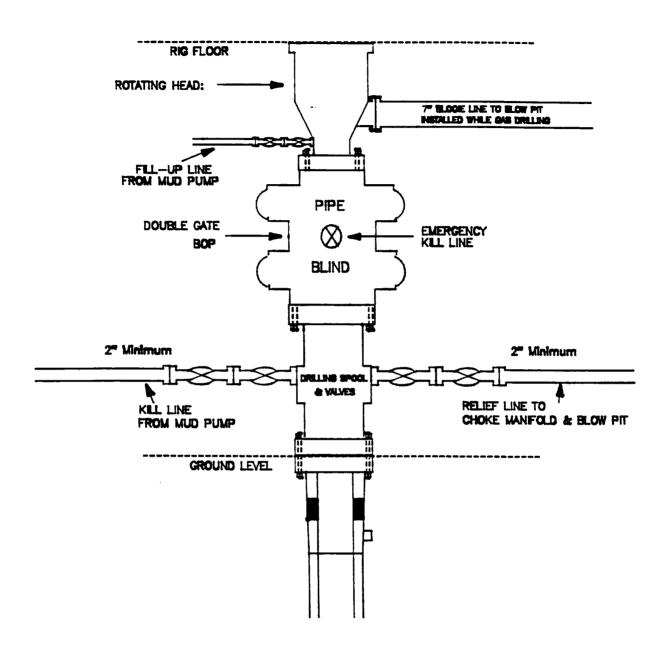
Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

Additional information:

- * The Fruitland Coal and Pictured Cliffs formations will be completed and commingled per New Mexico Oil Conservation Division order.
- * Anticipated pore pressure for the Fruitland is 1150 psi and for the Pictured Cliffs is 1150 psi.
- This gas is dedicated.
- * The north half of Section 24 is dedicated to the Fruitland Coal and the northeast quarter of the section is dedicated to the Pictured Cliffs.
- New casing will be utilized.
- * Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

MERIDIAN OIL INC.

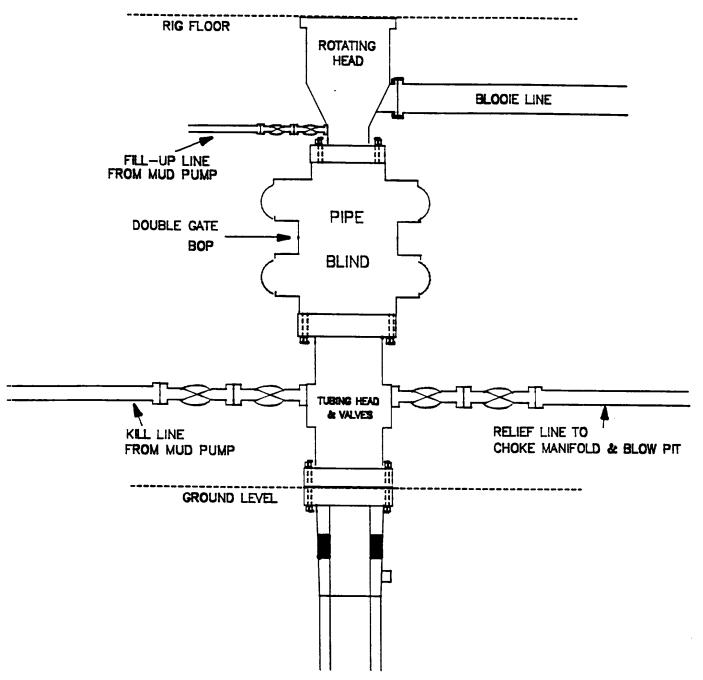
BOP Configuration 2M psi SYSTEM



11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

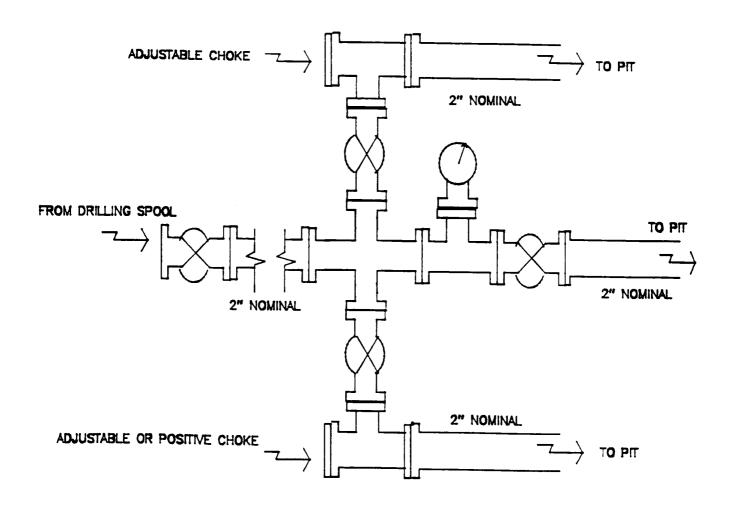
MERIDIAN OIL INC.

BOP Configuration 2M psi SYSTEM



Minimum BOP installation for Completion operations. 7 1/16" Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

MERIDIAN OIL INC. Choke Manifold Configuration 2M psi SYSTEM



Minimum choke manifold installation from surface to Total Depth. 2" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

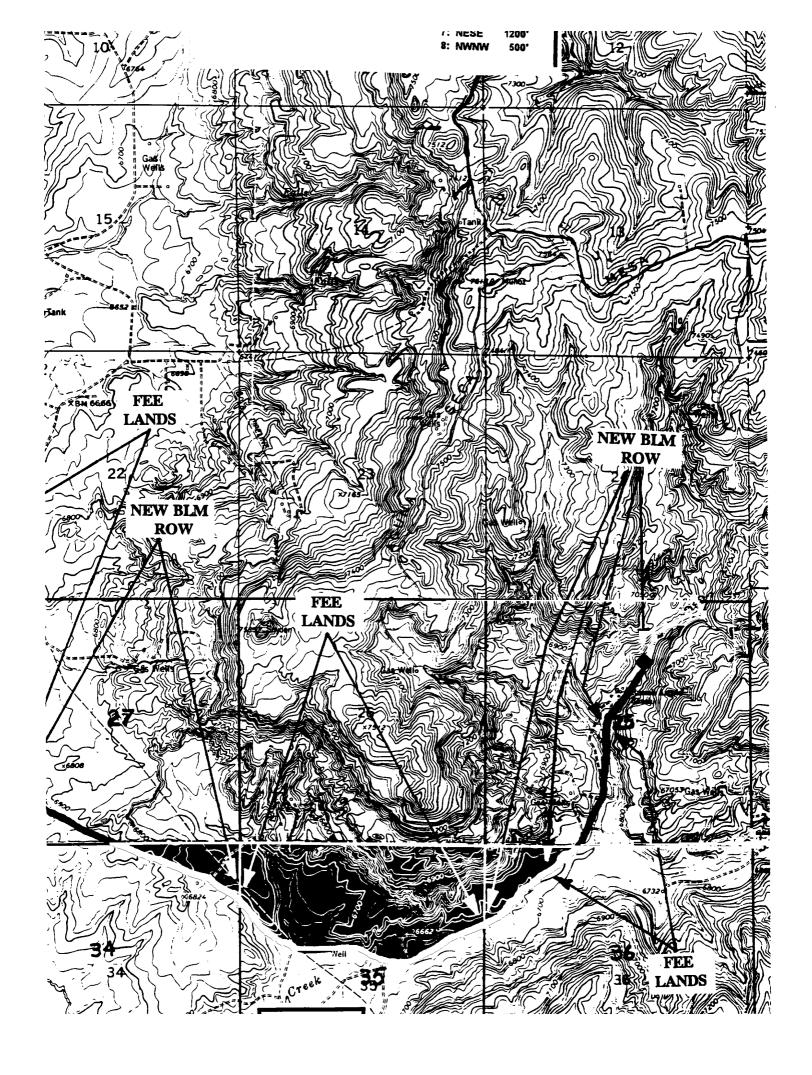
HEI MOLICE

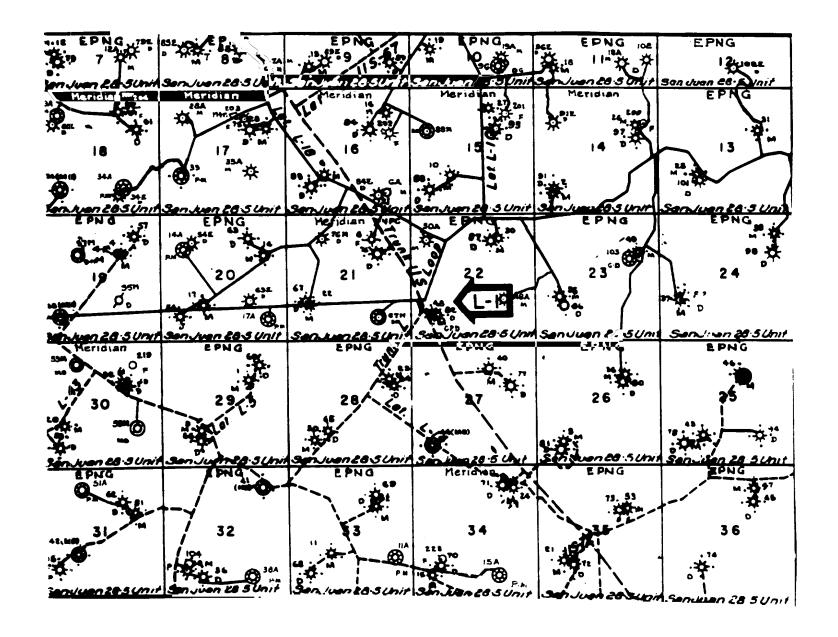


- Existing Roads Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
- 2. Planned Access Road Refer to Map No. 1. None required.
- 3. Location of Existing Wells Refer to Map No. 1A.
- 4. Location of Existing and/or Proposed Facilities if Well is Productive
 - a. On the Well Pad Refer to Plat No. 1, anticipated production facilities plat.
 - b. Off the Well Pad Anticipated facilities off the well pad will be applied for as required.
- 5. Location and Type of Water Supply Water will be hauled by truck for the proposed project and will be obtained from San Juan 27-5 Water Well #1 located NE/4 Section 3, T-27-N, R-5-W, New Mexico.
- 6. Source of Construction Materials If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
- 7. Methods of Handling Waste Materials All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. All reserve pits will be lined with 12 mil bio-degradable plastic liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
- 8. Ancillary Facilities None anticipated.
- 9. Wellsite Layout Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.

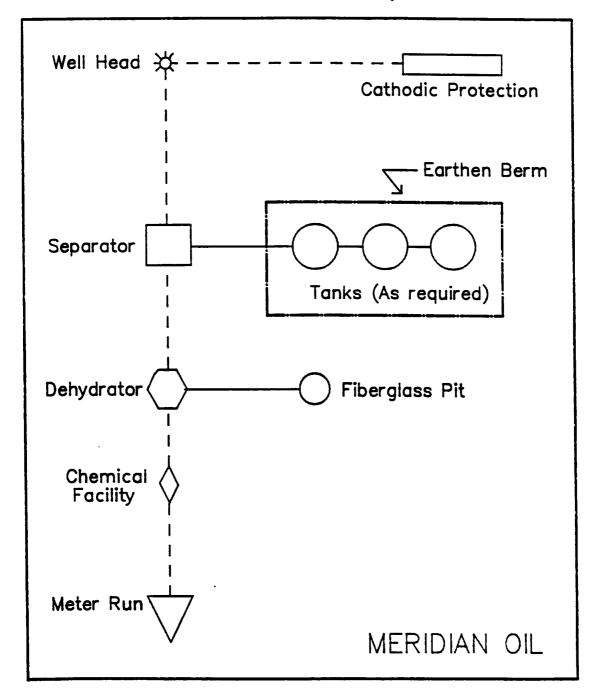
- Plans for Restoration of the Surface After completion of the proposed project, the 10. location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.
- 11. Surface Ownership - Bureau of Land Management
- 12. Environmental stipulations as outlined by the responsible Other Information government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- 13. Operator's Representative and Certification - Meridian Oil Regional Drilling Manager. Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700, I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route: that I am familiar with the conditions which presently exist: that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Meridian Oil Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Regional Drilling Engineer





MERIDIAN OIL INC.
Pipeline Map
T-28-N, R-05-W
San Juan County, New Mexico
San Juan 28-5 Unit #230
Map #1A

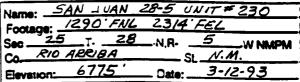


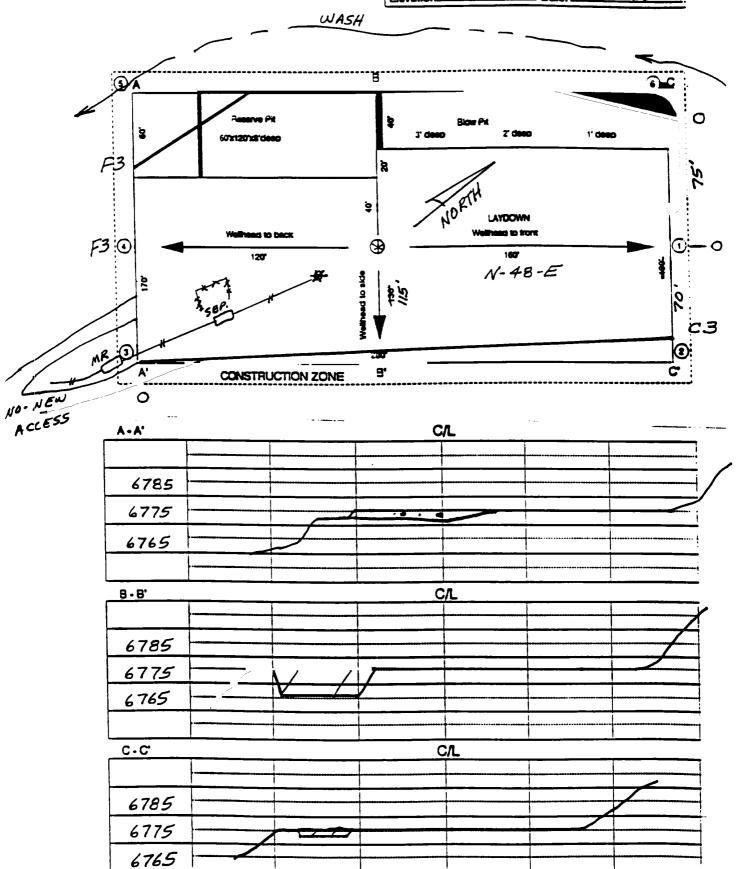
PRODUCTION FACILITIES

FOR A

FRUITLAND COAL/PICTURED CLIFFS COMMINGLED WELL

MERIDIAN OIL Plat 2





Salesta to Attentions
District Office
Sales Access - 4 common

State of New Mexico Energy, Minerals and Named Resources Department.

Form C-188:

P.O. Box 1980, Hobba, NM 85240

OIL CONSERVATION DIVISION

P.O. Box 2022

Same Fe. New Mexico 87504-2088

DISTRICT DI 1000 Rio States SA. Amer. PM 87410

P.O. Derver OD. Artens. NM 88210

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer troumstance of the section San Juan 28-5 Unit Meridian Oil Inc. 230 5 West В 25 28 North Rio Arriba Address of the last of Welt: 1290 North 2314 East feet from the Grand town Elev. ne francos 6775 Fruitland Coal/Pic.Cliffs Basin/So.Blanco 344.64/184.64 1. Customs the accompt decisiones to the autient well by execute passes or autient matter on the pull below. 2. If many than one tenes as declarated to the west, outline cash and idea nt government an destinant to the work, have the imment of all government been committeed by a Vancous yes type of commission unitization **1016 1715 14 Au** OF WHILE RESPONDED THE PARTY OF not has been expressed by the Divine 5687.88° OPERATOR CERTIFICATION I 5F1-079520 A Peggy Bradfield 2314 Regulatory Affairs Meridian Oil Inc. 9-2043 2 SURVEYOR CERTIFICATION ECEIVE I haveny carryly that the well less on this plat was platted from field notes t 3 MAR 0 3 1994 PIL CON. DIV DIST_3 4

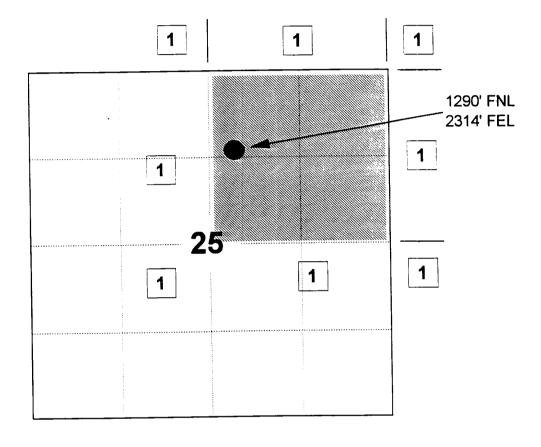
MERIDIAN OIL INC

SAN JUAN 28-5 UNIT #230

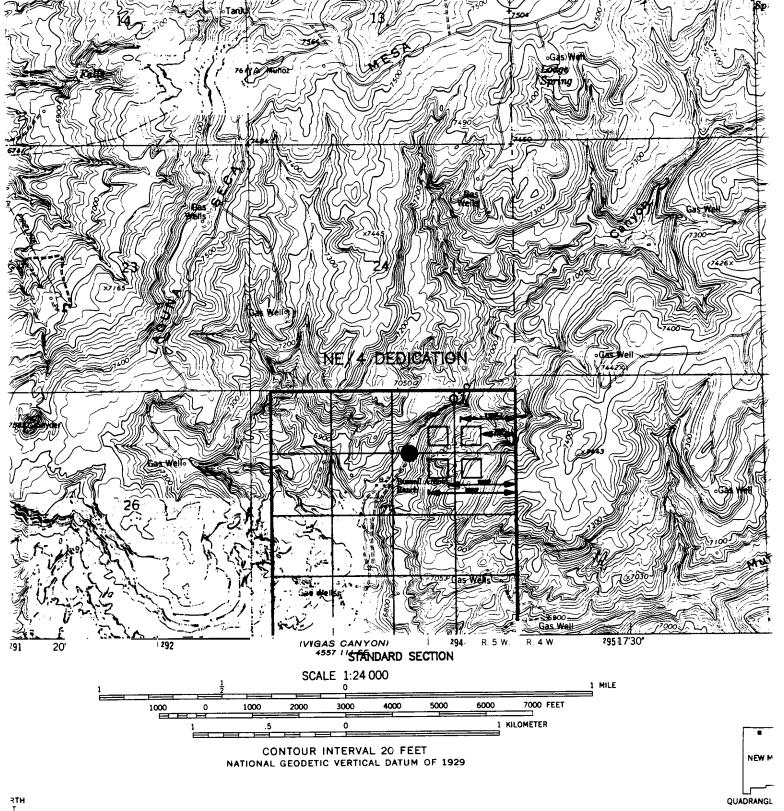
OFFSET OPERATOR \ OWNER PLAT

Unorhtodox Pictured Cliffs Well Location

Township 28 North, Range 5 West



| 1) Meridian Oil Inc | | | |
|---------------------|------------------|------|--|
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THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

MERIDIAN OIL

Revisions shown photographs take field check by U.

n 1983

